

## **PROPOSAL 163**

EFFECT OF THE PROPOSAL: Authorizes a predator control program in a small portion of Unit 24B.

DEPARTMENT RECOMMENDATION: **Amend and Adopt**

RATIONALE: This is a Department proposal originally submitted to the Board as a placeholder. The following amendment establishes a predator control plan in Unit 24B and focuses wolf control activities in a 1,360 square mile Upper Koyukuk Moose Management Area. Hunters in the Upper Koyukuk River drainage have experienced a decreasing moose population and increased difficulty in moose harvest for the last 15 years. The economic impact of increasing hunter effort required to harvest moose has been compounded by increasing fuel prices. Baseline biological data collected in Unit 24B since 1989 confirm the moose population is declining, corroborating concerns of local subsistence hunters. The Department has assessed the moose population decline in Unit 24B and has developed an Intensive Management Program that includes this wolf predation control plan to address the situation.

(X) **Unit 24B Predation Control Area:** the Unit 24(B) Predation Control Area is established and consists of those portions of the Koyukuk River drainage within Unit 24(B), encompassing approximately 13,523 square miles; this predation control program does not apply to any National Park Service or National Wildlife Refuge lands unless approved by the federal agencies; notwithstanding any other provisions in this title, and based on the following information contained in this section, the commissioner or the commissioner's designee may conduct a wolf population reduction or wolf population regulation program in Unit 24(B):

- (1) an Upper Koyukuk Management Area (UKMA) is established within the Unit 24(B) Predation Control Area encompassing approximately 1,360 square miles surrounding the villages of Alatna and Allakaket and bounded to the north at 66° 52' N. Lat., to the east at 152° 10' W. Long., to the south at 66° 10' N. Lat., to the west at 153° 45' W. Long.; the UKMA does not delineate a moose or wolf population and is not intended to distinguish animals within the UKMA from populations in Unit 24(B); the purpose of the UKMA is to focus wolf control in an area where moose are accessible to hunters, rather than spread this effort over the entire game management unit; wolf control will be conducted only within the UKMA, and the department will have the discretion to adjust its size and shape up to 20 percent (approximately 2,700 square miles) of Unit 24(B) if necessary;
- (2) this is an experimental program that will have limited impact on the moose and wolf populations in Unit 24(B); it is designed primarily to reallocate moose from wolves to humans in the UKMA and is expected to make only a small contribution to the intensive management (IM) moose harvest objective in Unit 24(B); at the end of the authorized period for removal of wolves, the control program will be terminated.

(3) Moose and wolf objectives are as follows:

- (A) the moose intensive management (IM) objectives established by the board for Unit 24(B) are for a population of 4,000–4,500 and an annual harvest of 150–250;
- (B) the moose harvest objective for the UKMA is for an annual harvest of 35–40 moose by fall 2017;
- (C) the wolf population control objective for Unit 24(B) is 100–140; the pre-control wolf population in Unit 24(B) was estimated in fall 2008 at 202–284; a minimum population of 100 wolves is approximately a 50 percent reduction from the pre-control population and will assure that wolves persist as part of the natural ecosystem in Unit 24(B) and assure continued wolf hunting, trapping and viewing opportunities;
- (D) the wolf control objective in the UKMA is to reduce wolf numbers to the lowest level possible; in fall 2010, the estimated maximum number of wolves in the UKMA was 25-60;

(4) Board findings concerning populations and human use are as follows:

- (A) the Unit 24(B) moose population and harvest objectives have not been achieved;
  - (i) in early winter 2010 the observable moose population size in Unit 24(B) was estimated at 1,800–3,400 (0.13–0.25 moose per square mile), based on extrapolation of population estimates from survey areas in the unit, including all or parts of the UKMA, Kanuti National Wildlife Refuge, and Gates of the Arctic National Park and Preserve; during regulatory years 2008–2009 through 2010–2011, estimated annual harvest in Unit 24(B) was 82–109 moose;
  - (ii) in early winter 2010, the number of observable moose within the UKMA was estimated at 405 (90 percent confidence interval:  $\pm 96$ ); estimates of annual harvest from the UKMA are not available; however, Division of Subsistence household surveys from the villages of Alatna and Allakaket within the UKMA indicated moose harvest during 1997–2002 averaged approximately 40 per year; Division of Wildlife Conservation estimated current reported and unreported harvest in Alatna and Allakaket was 15–20 moose annually; based on resident testimonials, cost to obtain a moose has increased due to declining moose densities and increasing fuel costs;
- (B) predation by bears and wolves is an important cause of the failure to achieve moose population and harvest objectives;
  - (i) moose surveys in Unit 24(B) during spring 2008–2011 indicated high twinning rates (average 57 percent), thus good body condition; fall composition surveys in Unit 24(B) indicated high productivity, with calf:cow ratios averaging 44

calves per 100 cows, but cohort survival was low with yearling bulls averaging 11 per 100 cows; these survey data and a predicted calving rate of 80 percent indicate more calves are lost during summer (due primarily to bear predation) than winter (due primarily to wolf predation);

- (ii) studies from Interior Alaska have documented bears as the primary source of neonatal moose mortality, whereas wolves are the primary predator of moose >12 months of age; based on radio-collared adults in Units 24(A) and 24(B) (2008–2009), annual adult mortality is approximately 8–10 percent;
- (C) a reduction of wolf predation within the UKMA can reasonably be expected to make progress towards achieving the Unit 24(B) intensive management objectives; modeling of the current moose abundance in the UKMA using estimated abundance of 45–55 wolves, 75 black bears, 25 grizzly bears, 405 ( $\pm 97$ ) moose, and a harvest of 20 moose annually, indicated that moose abundance should slowly increase in response to wolf control that increases calf and yearling moose survival; wolf control alone likely will result in a positive response in moose abundance after 5 winters of control, including reallocation of some surviving moose to harvest;
- (D) Reducing predation is likely to be effective and feasible utilizing recognized and prudent active management techniques and based on scientific information; based on survey results indicating wolf predation is an important source of mortality, reducing wolves in a small geographic area will likely result in increased moose survival and additional animals available for hunter harvest; harvest data will be collected using harvest ticket or registration permit reports, household surveys, and other reporting mechanisms such as calendars for recording hunting activities; moose population data collection will include abundance, calf:cow ratio, and yearling bull:cow ratio from population estimation surveys and calf survival and yearling survival from radio-collared moose;
- (E) Reducing predation is likely to be effective given land ownership patterns; the UKMA was selected based on land ownership status (minimizing federal lands), proximity to traditional moose hunting areas for the villages of Allakaket and Alatna (maximizing inclusion of navigable river corridors), and habitat suitability; within the UKMA, 125 square miles (9.2 percent) is federal land (BLM/USFWS), 576 square miles (42.3 percent) is Alaska Native corporation land, 659 square miles (48.4 percent) is State of Alaska lands;
- (5) authorized methods and means are as follows:
- (A) hunting and trapping of wolves by the public in Unit 24(B) during the term of this program may occur as provided in the hunting and trapping regulations set out elsewhere in this title, including use of motorized vehicles as provided in 5 AAC 92.080;

(B) notwithstanding any other provisions in this title, the commissioner may allow department employees to conduct aerial, land and shoot, or ground based lethal removal of wolves using state owned, privately owned, or chartered equipment, including helicopters, under AS 16.05.783;

(C) notwithstanding any other provisions in this title, the commissioner may issue public aerial shooting permits or public land and shoot permits using fixed-wing aircraft as a method of wolf removal under AS 16.05.783;

(6) time frame is as follows:

(A) during July 1, 2012–June 30, 2018, the commissioner may authorize removal of wolves in Unit 24(B);

(B) annually, the department shall, to the extent practicable, provide to the board a report of program activities conducted during the preceding 12 months, including implementation activities, the status of the moose and wolf populations, and recommendations for changes, if necessary to achieve the objectives of the plan;

(7) the commissioner will review, modify or suspend program activities when the wolf surveys or accumulated information from department personnel, hunters, trappers, and permittees indicate the need to avoid reducing wolf numbers in Unit 24(B) below the control objective of 100 wolves specified in this subsection;

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